

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028355**Date Inspected:** 08-Sep-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2130**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA randomly observed ABF/JV QC inspector Jesse Cayabyab performing Ultrasonic Testing (UT) of the edge plate field splice between lift 13E and 14E designated as 13E/14E-G. The locations Ultrasonically tested were in way of repairs performed and completed 24 hours prior. The following locations were tested;

Y=0 No rejectable indications observed.

Y=100 No rejectable indications observed

Ultrasonic Testing OBG

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Deck drop-in and field splice connections for lift 13E and 14E. The welds were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 13E/14E Edge Plate field splice (Weld No. 13E/14E-G)

The QAI performed a minimum of 50% verification of this weld. No rejectable indications were observed at the time of inspection; however planar misalignment from 3mm~14mm remains at the lower termination of the weld. The QA task leader was notified in writing of the issue on 08/12/2012 for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management. The QA verification of this weld was

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performed on this date to ensure weld soundness prior to load transfer of the SAS deck.

Lift 13E Deck Drop-in transverse splice (Weld No. 13E-PP122.2)

The weld was partially turned over to QA for verification between Y=3250 and Y=5000. The QAI performed 20% verification of this weld between these two Y locations only. No rejectable indications were observed at the time of inspection.

The ABF welder Richard Chouinard was observed continuing to perform Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair.

The repair areas were excavated and magnetic particle testing (MT) by the ABF QC inspector Salvador Merino on the previous shift. The weld is designated as 13E-PP122.2 and the repairs are located at Y=700 and Y=1515. The weld and surrounding area was brought to a temperature of 325°F by the use of induction heaters and maintained throughout the welding process. The weld was then post heated at 450°F for one hour. The repairs were performed in accordance with approval for repair document RWR201208-48 and RWR201208-49.

Magnetic Particle Testing (OBG 13E/2W)

This QA Inspector performed a minimum of 15% verification Magnetic Particle Testing (MT) of the lift 2W Longitudinal Deck Stiffener splices and the web flange connections for the deck panel drop-in on lift 13E. This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

Lift 2W Longitudinal Deck Stiffener splice (Weld No. DAH-2W-PP13.5-W2-LS-E)

The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

Lift 2W Transverse Deck Stiffener splice (Weld No. DAH-2W-PP13.5-W2-TS)

The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

Lift 13E Flange splice (Weld No. 13E-PP123.5-E2.1-BF3)

The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

Lift 13E web to flange splice (Weld No. 13E-PP123.5-E2.1-BF2)

The QAI performed a minimum of 15% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 13E Vertical flange splice (Weld No. 13E-PP122.5-E2.1-BF1)

The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

Lift 13E/14E edge plate field splice (Weld No. 13E/14E-G)

The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

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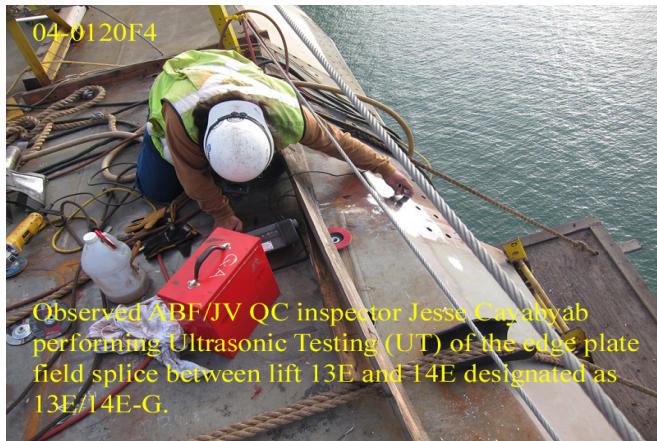
The QA inspector observed at random intervals, ABF/JV qualified welder Chris Bowles #9317 performing Shielded Metal Arc Welding (SMAW) in the 3G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1040A Rev1. The production welding observed was for the lift 12 east corner assembly drop-in web splice at panel point 114.5 and is designated as 12E -PP114.5-BW2. The weld surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed ABF personnel prior to welding. After the completion of the cover pass from face A, welder Chris Bowles was observed performing Carbon Arc Gouging (CAG) of the root of this weld. The ABF/JV QC inspector Salvador Merino was noted performing magnetic particle testing (MT) in way of the backgouged root with no indications observed at the time of inspection. Welder Chris Bowles then proceeded to weld face B with the fill passes of the backgouge completed prior to the end of the shift.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Patterson,Rodney	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
